



Smoking and Tobacco Use in Hawai'i: Facts, Figures, and Trends



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Hawai'i State Department of Health
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Honolulu, HI 96813



Aloha kakou,

Smoking and tobacco use are the leading cause of preventable morbidity and mortality in Hawai'i and the nation. Tobacco use results in the death of over 1,100 residents of Hawai'i annually and costs \$525 million a year in medical costs and lost productivity.

The Hawai'i State Department of Health is pleased to present this overview of data on smoking and tobacco use in our state. This report is a valuable resource to decision makers, programs, agencies, organizations and anyone who is interested in gaining a better perspective on the issue and identifying and defining objectives and target goals.

It is our hope that this information will help us all to make great strides to reduce the burden of tobacco in Hawai'i.

Pupukahi I Holomua,



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EXECUTIVE SUMMARY

Since 1991, the Tobacco Prevention and Education Program at the Hawai'i Department of Health has developed and implemented a comprehensive program to reduce tobacco use in the State of Hawai'i by preventing initiation, promoting quitting, eliminating exposure to environmental tobacco smoke and eliminating disparities related to tobacco use. A major component of a comprehensive program is surveillance and evaluation to monitor progress towards goals. This document is an effort to summarize the available data on tobacco use and related issues in one place to provide a comprehensive look at tobacco use in Hawai'i.

Adult Tobacco Use

About 1 in 5 adults in Hawai'i smoke cigarettes. Young (18-24), men, Native Hawaiians, low-income and Neighbor Islands residents have higher smoking rates. Few adults in Hawai'i (< 8%) use other forms of tobacco, including chewing tobacco, pipes, and cigars. Among smokers, about 30% smoke less than 10 cigarettes a day, while another 30% smoke a pack a day. Most smokers in Hawai'i (85%) are not planning on quitting in the next month. When smokers decide to quit, most (72%) choose to do it on their own. The tobacco tax stamping law has increased revenue from cigarettes by over \$20 million per year.

Youth Tobacco Use

Almost 7 out of 10 high school students in Hawai'i have tried smoking, with just under 30% smoking in the past month. About 13% of high school students are frequent smokers (defined as smoking at least 20 days in the past month). Hawai'i middle school students are more likely to have tried smoking cigarettes than mainland middle school students. No difference exists for high school students. Mainland high school students are more likely to use cigars and chewing tobacco than their Hawai'i counterparts. Most (> 70%) Hawai'i high school students who smoke prefer menthol cigarettes. Illegal sales of cigarettes to youth have declined steadily since 1996, when the Department of Health began coordinating statewide compliance checks. Most adults (70%) strongly agree that retail outlets should be required to obtain licenses to sell tobacco.

Environmental Tobacco Smoke

About one in five households in Hawai'i has an adult who smokes living there. About seven out of ten do not allow smoking in their house or car. About 1 in 8 indoor workers have been exposed to secondhand smoke on the job during the past week. Over 70% of work places prohibit smoking in all enclosed areas. The majority of people, even smokers, believe that secondhand smoke harms nonsmokers. Less than 20% of people in Hawai'i and less than 40% of smokers believe that it is OK to smoke indoors. Over 70% of people in Hawai'i, and almost 50% of smokers, believe all restaurants and bars should be smoke-free.

Specific Populations

Native Hawaiians

Native Hawaiians have the highest smoking rate of any ethnic group in Hawai'i. The average Native Hawaiian smoker smokes their first cigarette when they are 14-15 years old. Menthol cigarettes, specifically Kools, are the preferred brand of cigarettes for this population. Most Native Hawaiian smokers would like to quit, or at least cut down their smoking. However, awareness and use of quit smoking programs is low in this population. A majority of respondents report-

ed receiving advice from their physicians to quit smoking, however the proportion doing so was lower than in the overall population or among Native Hawaiians statewide.

Pregnant women

Pregnant women smoke at a similar rate to other women in their age group. Most women quit smoking during pregnancy, but about 8% continue to smoke in their third trimester. Almost three quarters of pregnant women are asked by a health care worker about smoking during pregnancy. Women who continued to smoke during the third trimester were slightly more likely to have a low birth weight baby than those who did not smoke.

Media Evaluation Summary

The media evaluation shows that the DOH's anti-tobacco spots are almost universally recognized by the public. Television is the most widely recognized channel of the spots, but other channels support the message well and are less expensive. In general, people believe the ads are effective and have made them think about whether or not they should smoke.

INTRODUCTION

Cigarette smoking is the leading cause of preventable death in the US, accounting for more than 400,000 deaths annually.^{1,2} Despite an overall decline in the prevalence of smokers, 28.5% of high school students and 23.4% of adults continue to smoke.^{3,4} In addition to the health effects of tobacco use on the smoker, the effects of secondhand smoke are becoming better known. The U.S. Environmental Protection Agency has classified secondhand smoke as a known human carcinogen to which there is no safe level of exposure.

CDC Best Practices

In 1999, the US Center for Disease Control released a report on “Best Practices for Comprehensive Tobacco Control Programs.” This document was designed to produce recommendations to reduce disease, disability, and death related to tobacco use by:

- Preventing the initiation of tobacco use among young people,
- Promoting quitting among young people and adults,
- Eliminating nonsmokers’ exposure to environmental tobacco smoke, and
- Identifying and eliminating disparities related to tobacco use.⁵

The document focuses on 9 evidence-based components that are included in a comprehensive tobacco control program: community programs, chronic disease programs, school programs, enforcement of existing policies, statewide programs, counter-marketing, cessation programs, surveillance and evaluation, and administration and management.

Hawai‘i’s Comprehensive Tobacco Control Program

Since 1991, the Tobacco Prevention and Education Program at the Hawai‘i Department of Health has developed and implemented a comprehensive program to reduce tobacco use in the State of Hawai‘i by preventing initiation, promoting quitting, eliminating exposure to environmental tobacco smoke, and eliminating disparities related to tobacco use. A major component of a comprehensive program is surveillance and evaluation to determine progress towards goals. This document is an effort to summarize the available data on tobacco use and related issues in one place in order to provide a comprehensive look at tobacco use in Hawai‘i.

About this document

Comprehensive programs require comprehensive data. No one survey can collect all of the data necessary to provide a complete picture. This publication includes data from 11 different data sources. We hope that this publication provides a clearer picture of tobacco use in Hawai‘i.

ADULT TOBACCO USE

Aults (age 18+) consume the majority of tobacco in the state. Understanding who is using tobacco and how they are using it is important for reducing consumption. Data on adult tobacco use is collected through two self-report surveys. The Behavioral Risk Factor Surveillance Survey (BRFSS) is conducted annually and contains information on cigarette use and demographics. The Adult Tobacco Survey (ATS) was conducted in 1998 and 2001 and will be collected again in late 2003. While conducted less often than the BRFSS, the ATS provides a more in-depth look at tobacco use behaviors and attitudes that can be useful in program evaluation. In addition, the Healthy Hawai'i Initiative Survey (HHI), vital statistics, and data from the Department of Taxation round out the picture. More information on the data sources can be found in the Appendix.

Health Impact of Tobacco

It is estimated that 167 deaths of every 100,000 in Hawai'i are related to tobacco use (A). This is lower than the nationwide median of 288 per 100,000. According to Hawai'i vital statistics, almost half of all deaths are due to conditions that can be caused by tobacco use; however we cannot assess exactly how many are directly related to tobacco (B). Figure 1 displays deaths from tobacco-related conditions in Hawai'i.

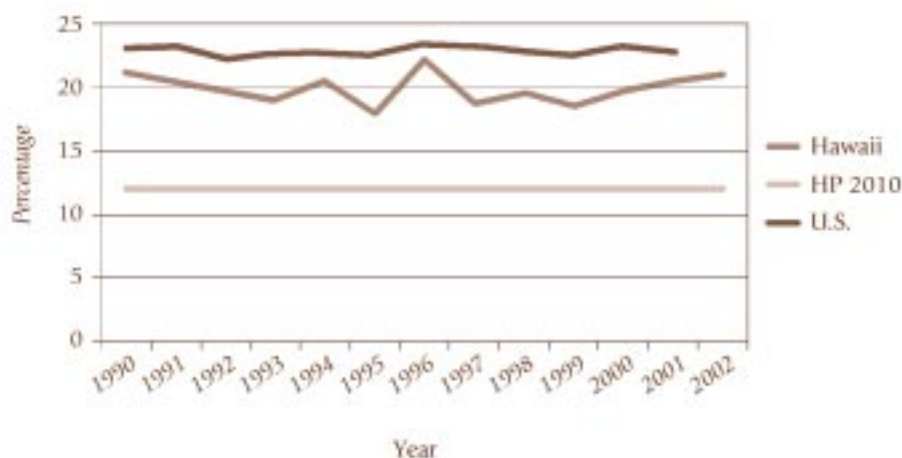
Figure 1. Deaths from Tobacco Related Diseases, Vital Statistics 2000

Cause of Death	HAWAI'I		NATIONWIDE ⁶	
	Number	% of Total	Number	% of Total
Lung, Bronchus, & Trachea Cancer	447	5.5%	154,981	6.4%
Lip, Oral Cavity & Pharynx Cancer	39	0.5%	7,436	0.3%
Disease of the Heart	2,603	31.9%	709,894	29.5%
Cerebrovascular Disease	698	8.6%	166,028	6.9%
Chronic Lower Respiratory Disease	267	3.3%	123,550	5.1%
	4,105	49.7%	1,161,889	48.2%

Adult Smoking Prevalence

Adult smoking in Hawai'i is lower than the national average. However, it is still well above the Healthy People 2010 goal of 12%. A slight increase has occurred in the prevalence since 1999, rising from 18.5% to 21% (C). Figure 2 displays adult smoking prevalence from 1990 to 2002 for Hawai'i and the U.S.

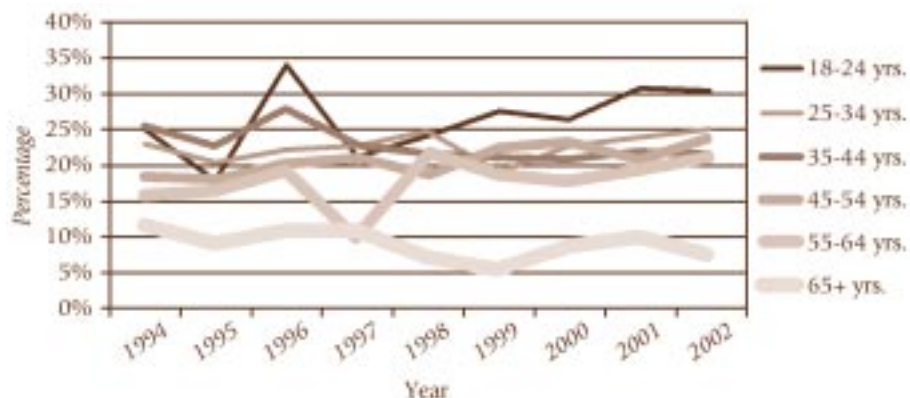
Figure 2. Adult Smoking Prevalence, Hawai'i and the U.S., 1999-2002, BRFSS



Note: In 2000, the BRFSS sample size changed from 2,000 to 6,000. Statewide error bars are reduced from 2.2% to 1.5%.

While knowing the overall prevalence is important, it is also essential to know adult smoking prevalence by age group. Next, we analyzed tobacco prevalence by age. Although prevalence for most age groups held relatively steady over the past 12 years, the smoking rate for 18-24 year olds increased from 21.1% in 1997 to 30.3% in 2002 (C). Tobacco use by age group is displayed in Figure 3.

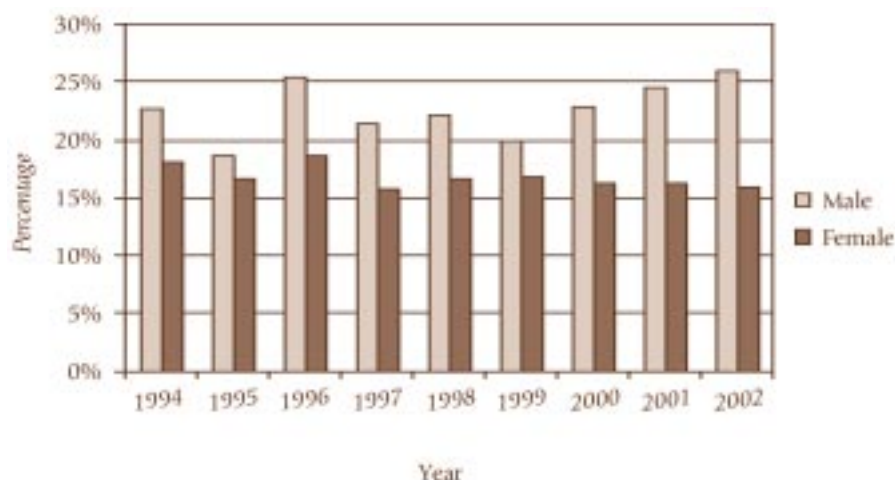
Figure 3. Adult Smoking Prevalence by Age Group, BRFSS 1994-2002



Adult Smoking Prevalence by Gender

Next, smoking prevalence by gender was examined. Men were found to be more likely to smoke than women (26% vs. 16.1% in 2002). Tobacco use among men has also increased steadily since 1999, from 20.1% in 1999 to 26.1% in 2002 (C). Tobacco use by gender is displayed in Figure 4.

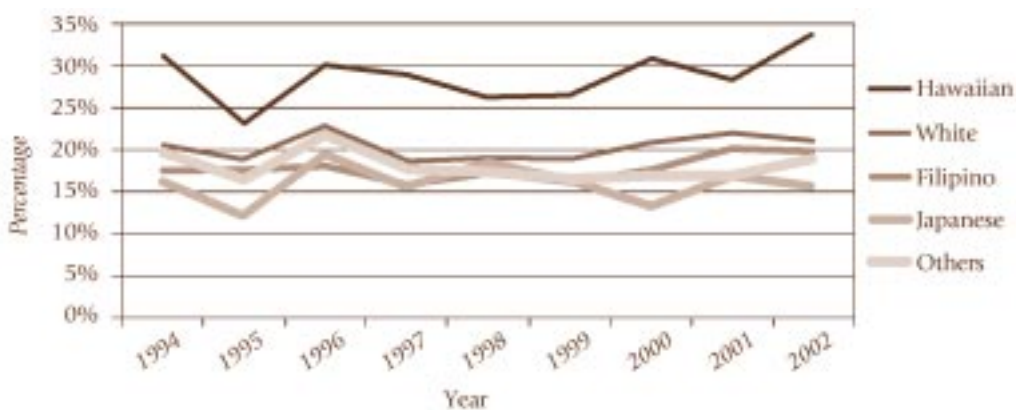
Figure 4. Adult Smoking Prevalence by Gender, BRFSS



Adult Smoking Prevalence by Ethnicity

Tobacco use by ethnicity was examined next. Native Hawaiians were more likely to smoke than any other ethnic group. In 2002, smoking prevalence was 33.8% for Native Hawaiians, compared to 21% for Caucasians, the next highest group (C). Figure 5 displays adult smoking prevalence by ethnicity.

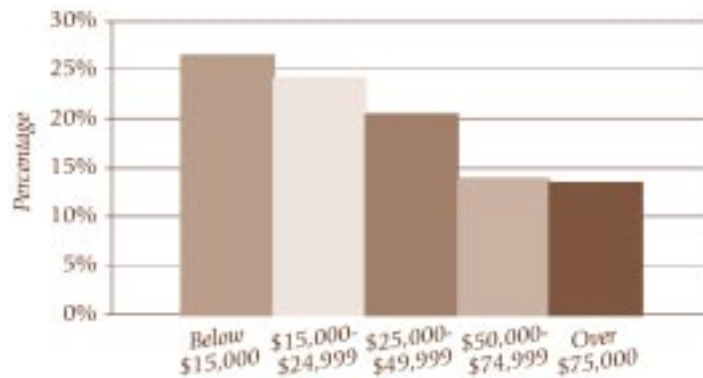
Figure 5. Adult Smoking Prevalence by Ethnicity, BRFSS



Adult Smoking Prevalence by Income

Smoking prevalence by income was assessed next. A linear, inverse relationship was found between income and smoking. Smoking in the highest income group was 13.5%, compared to 26.6% in the lowest income group. Figure 6 displays adult smoking prevalence by income (C).

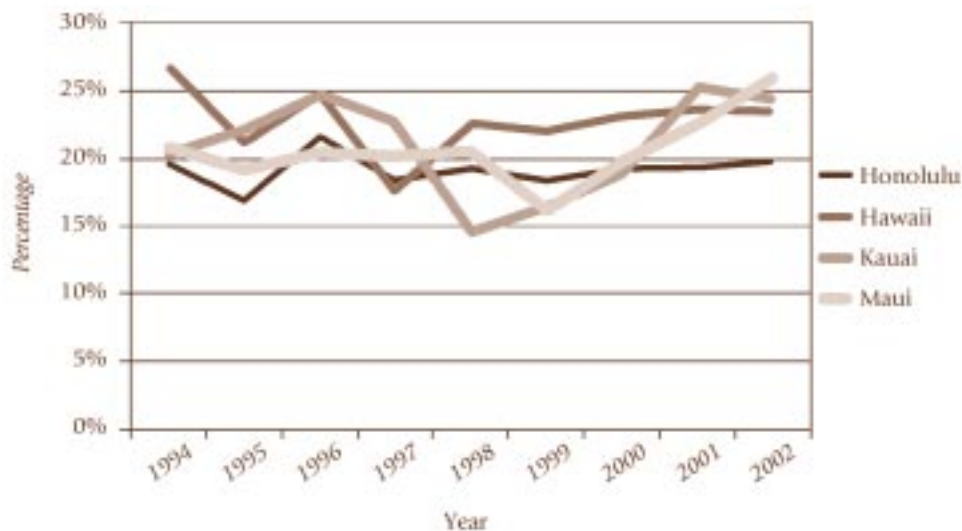
Figure 6. Adult Smoking Prevalence by Income Level, BRFSS 2002.



Adult Smoking Prevalence by County

Next, smoking prevalence was examined by county. Kauai and Maui Counties have experienced an increase in smoking prevalence over the past three years. The neighbor island counties (range from 23.5% - 25.9%) now all report higher smoking rates than Honolulu County (19.7%). Figure 7 displays smoking rates by county (C).

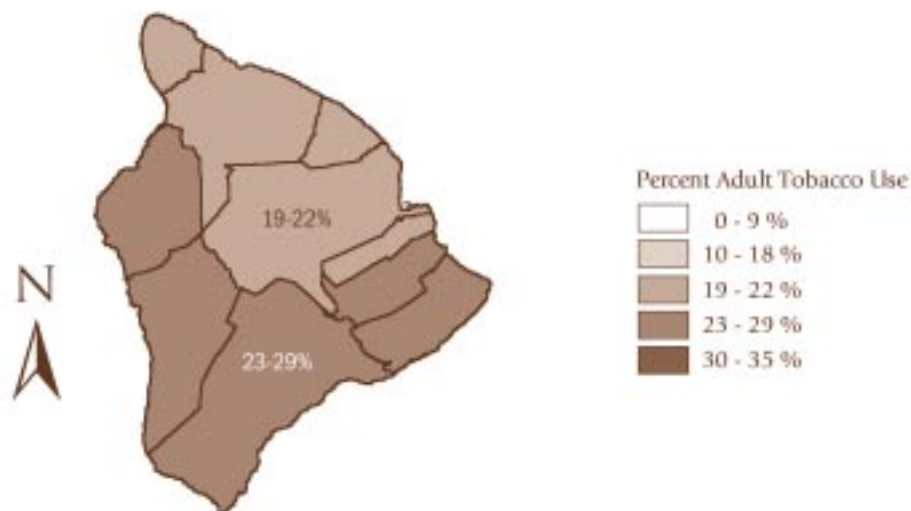
Figure 7. Adult Smoking Prevalence by County, BRFSS



Next, the counties were divided into communities. Geographical information systems (GIS) was used to identify areas with higher smoking rates (C,D) using the 2000 BRFSS. Please note the total BRFSS sample is 6,000. Some communities have small sample sizes. Different colors do not indicate statistical significance.

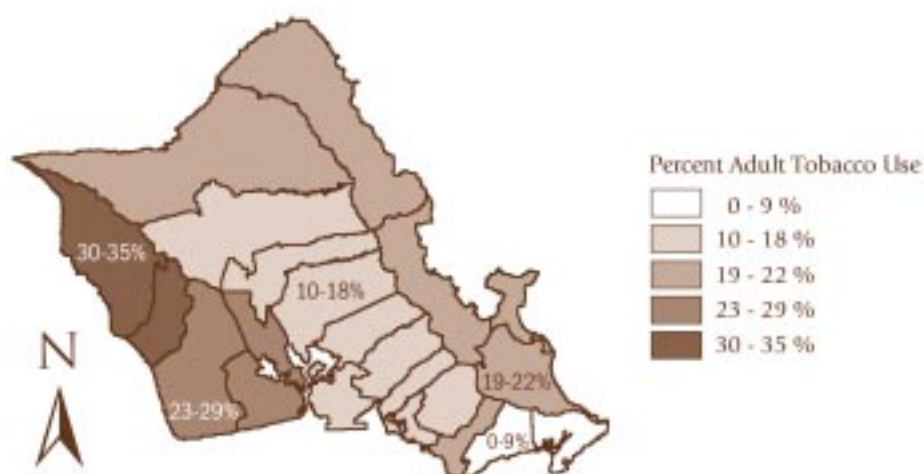
Adult Tobacco Use - Hawai'i County

West Hawai'i (24.3%) and southern parts of the Island of Hawai'i (24.3%) report slightly higher smoking rates than Hilo (22.2%) and North Hawai'i (21.4%).



Adult Tobacco Use - Honolulu County

On Oahu, the Waianae Coast (36.4%) has the highest smoking prevalence. The East Honolulu area (9.9%) has the lowest smoking prevalence in the state.

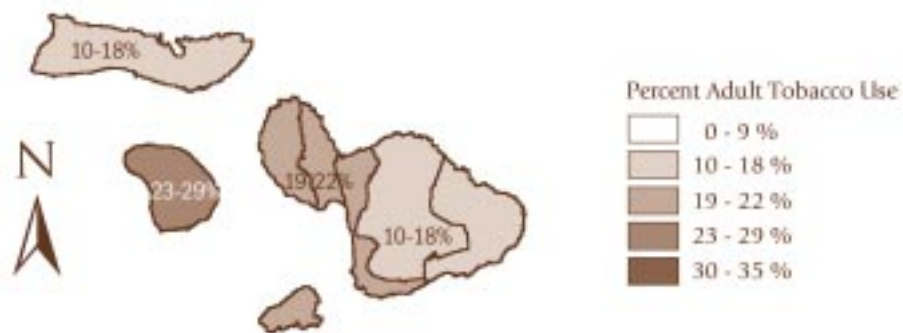


Adult Tobacco Use - Kauai County

In Kauai, smoking rates do not vary greatly by community, with all areas in the medium to high range (17.8%-20.2%).

**Adult Tobacco Use - Maui County**

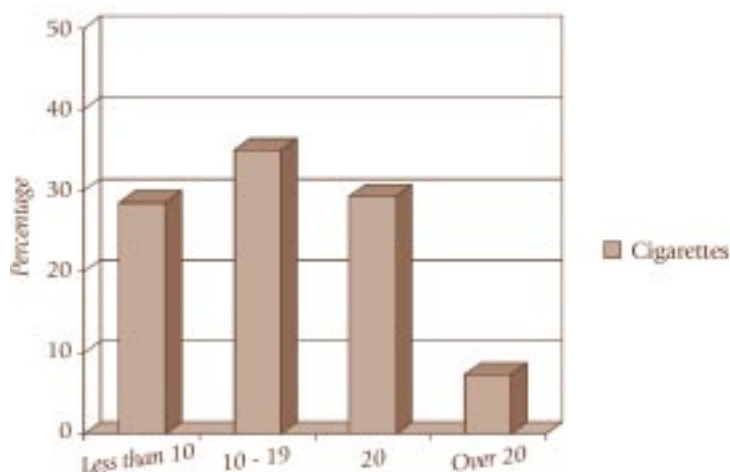
In Maui County, areas of West Maui (22.9%) report slightly higher smoking rates than Upcountry and East Maui (16.6%). Molokai (15.3%) reported lower rates of smoking, while Lanai (28.2%) reported higher rates. Both of these numbers should be examined with caution due to low sample sizes.



Cigarettes per day

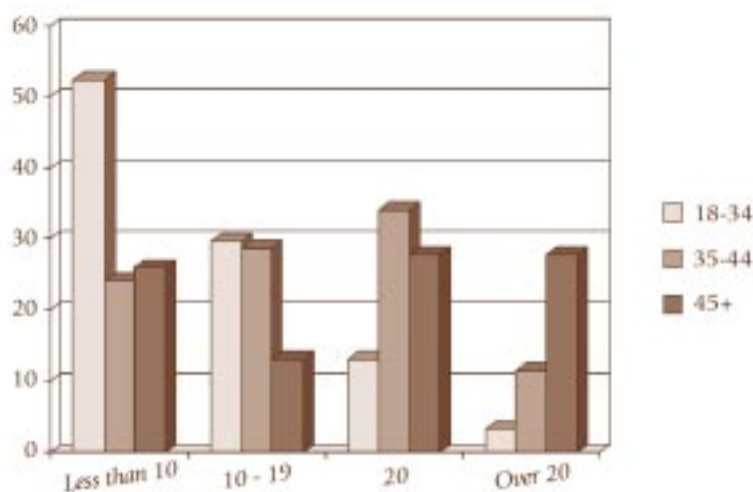
Next, we examined the number of cigarettes smoked per day. Data revealed that about 30% of smokers each smoked < 10, 10-19 or 20 cigarettes per day. Less than 8% of smokers reported smoking more than a pack a day (E). Figure 8 shows the number of cigarettes smoked per day.

Figure 8. Cigarettes smoked per day, ATS



The number of cigarettes smoked per day was then examined by age. Younger smokers were more likely to smoke fewer cigarettes, while older smokers were more likely to smoke a pack or more a day. Figure 9 displays the number of cigarettes smoked a day by age group.

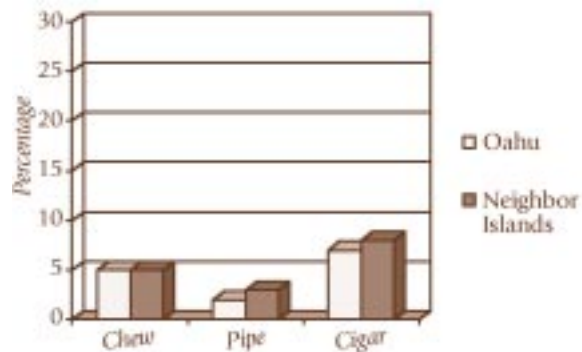
Figure 9. Cigarettes smoked a day by age group, ATS.



Other Tobacco Use

Next we examined the use of chewing tobacco, pipes, and cigars. Few people in Hawai'i use any of these forms of tobacco, with cigars being the most prevalent, but this percentage was less than 8% (E). Prevalence for other types of tobacco use are displayed in Figure 10.

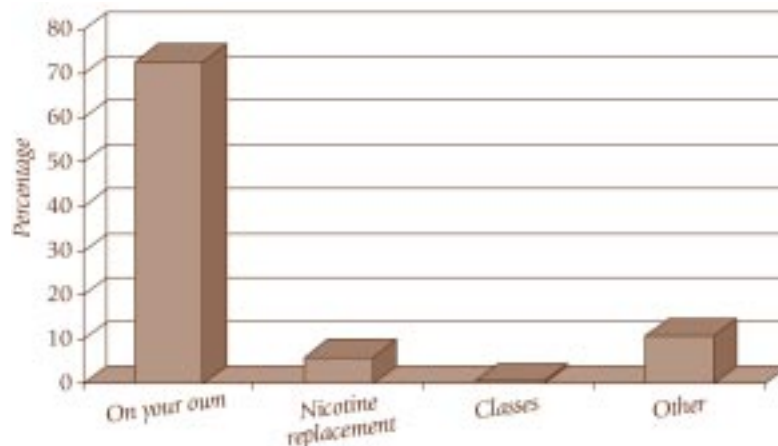
Figure 10. Prevalence of chewing tobacco, pipes, and cigars, ATS.



Stop smoking methods

Methods for quitting smoking were assessed next among former smokers and current smokers who had made a quit attempt. The majority (72.8%) reported quitting on their own, 5.9% reported using nicotine replacement therapy, and 10% reported using some other method, including counseling and self help manuals (F). Methods used to quit smoking are displayed in Figure 11.

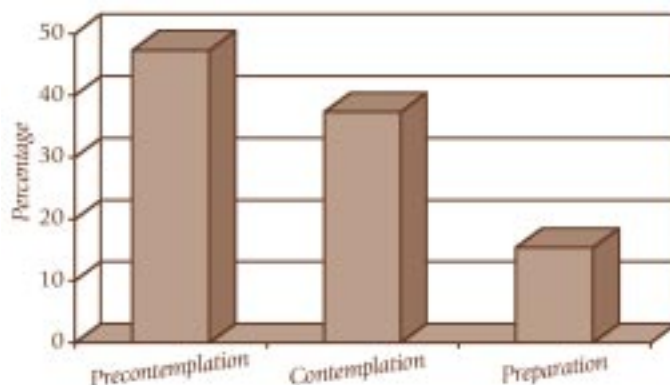
Figure 11. Methods used to quit smoking last time, HHI.



Stage of change

Stage of change among current smokers was assessed next. Most smokers (47.3%) reported being in the precontemplation stage (i.e., not thinking about quitting in the next 6 months). About a third of smokers (37.3%) reported being in contemplation (i.e., thinking about quitting in the next 6 months), while only 15.4% of smokers reported that they were in the preparation stage (i.e., planning on quitting in the next 30 days) (F). Stage of change for current smokers is displayed in Figure 12.

Figure 12. Stage of change among current smokers, HHI



Cigarette Tax Revenues

Revenues from cigarette excise taxes represent an important source of state general funds. The excise tax rate increased from \$.60 in 1997 to \$.80 in 1998, to \$1.00 in 1999 and to \$1.20 in 2002. Only July 1, 2003, the state excise tax was increased to \$1.30 per pack raising Hawai'i to the 7th highest excise tax rate in the country. In 2001, a tax stamp was introduced. This greatly reduced the number of smuggled cigarettes sold in Hawai'i and led to a \$20 million increase in excise taxes between 2000 and 2001. Fluctuations in tourism and the effect of the tax stamp make interpreting tax revenue and the number of packs taxed difficult. Figure 13 depicts the cigarette tax revenue from 1997-2002.

Figure 13. State Cigarette Tax, Hawai'i Department of Taxation

	Tax Revenue	Packs Sold
1997	\$32,878,288	54,797,147
1998	\$35,694,448	44,618,060
1999	\$39,697,383	39,697,383
2000	\$40,777,139	40,777,139
2001	\$61,282,238	61,282,238
2002	\$64,646,298	53,871,915

Summary of Adult Tobacco Use

About 1 in 5 adults in Hawai'i smoke cigarettes. Smoking prevalence is higher among young adults (18-24), men, Native Hawaiians, low-income residents and Neighbor Islands residents. Few people in Hawai'i (< 8%) use other forms of tobacco, including chewing tobacco, pipes, and cigars. Among smokers, about 30% smoke less than 10 cigarettes a day, while another 30% smoke a pack a day. Most smokers in Hawai'i (85%) are not planning on quitting in the next month. When smokers decide to quit, most (72%) choose to do it on their own. The tobacco tax stamping law has increased revenue from cigarettes by over \$20 million per year.

YOUTH TOBACCO USE

Youth tobacco use (age < 18) is a major concern of any comprehensive tobacco program. Many youth who begin smoking in middle and high school will become life long smokers. Understanding who is using tobacco and how they are using it is important in reducing consumption. Data on youth tobacco use is collected through two school based self-administered surveys. The Youth Risk Behavior Survey (YRBS) is conducted bi-annually and contains information on cigarette use and demographics. The Youth Tobacco Survey (YTS) was conducted in 2000 and will be conducted again in the fall of 2003. While conducted less often than the YRBS, the YTS provides a more in-depth look at tobacco use behaviors and attitudes that can be useful in program evaluation. More information on the data sources can be found in the Appendix.

Youth Smoking

Youth use cigarettes differently than adults. During middle school and high school, many youth experiment with tobacco. Some students become addicted and become life-long smokers, while others will stop smoking. Accordingly, both the number of students who have ever tried smoking and the number who have smoked in the past month are important indicators, with the latter figure being of special note. Figure 14 depicts the percent of high school students who have ever tried smoking. Figure 15 depicts the percent of high school students who have smoked in the past month.

Figure 14. Percent of high school students who have ever tried smoking, YRBS

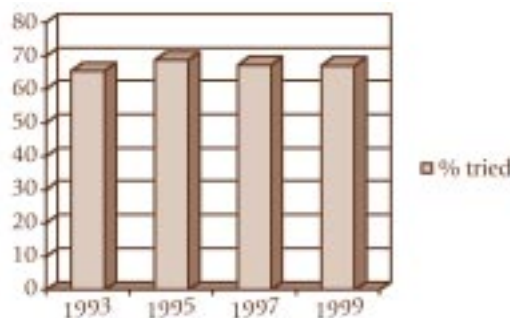
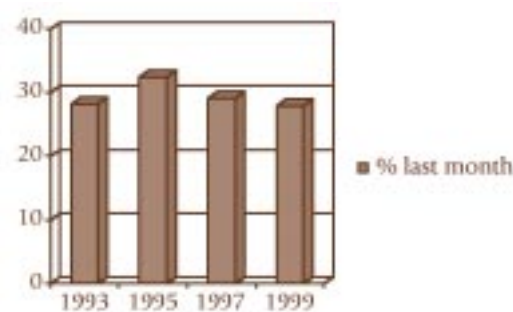
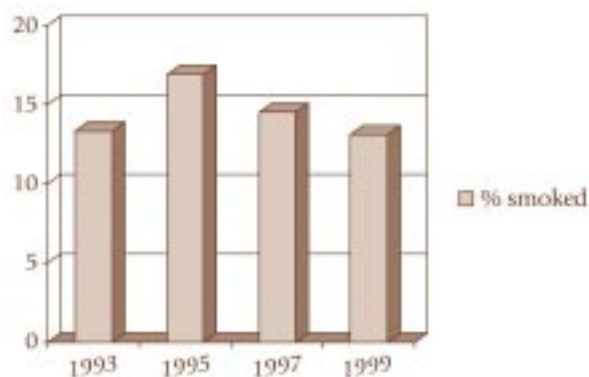


Figure 15. Percent of high school students who have smoked in the past month, YRBS



Between 1993 and 1999, the number of students who have ever tried smoking and the number who smoked in the past month have remained relatively stable. In 1999, 67.2% of high school students had tried smoking, while only 27.9% had smoked in the past month. Some students who smoke become regular smokers. In 1999, 13.1% of students reported smoking on at least 20 days in the past month. This was a non-significant decrease from a high of 16.9% in 1995. (G)

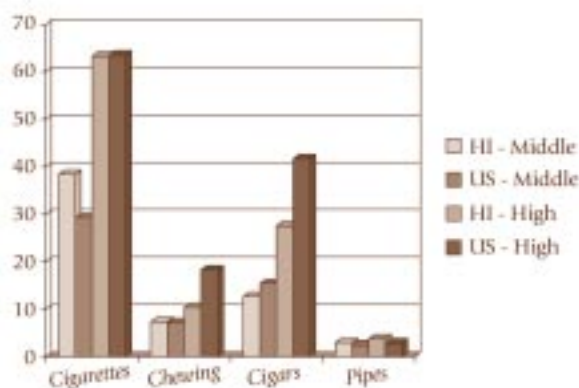
Figure 16. Students who smoked cigarettes on 20 or more days in the past month, YRBS.



Type of Tobacco Use

Youth are also more likely to experiment with different kinds of tobacco. While Hawai'i middle school students smoke cigarettes at a higher rate than their mainland counterparts, they are no more likely to use cigars, pipes or chewing tobacco. Among Hawai'i high school students, 27.5% reported ever trying cigars. While Hawai'i high school students smoke cigarettes at a similar rate as their mainland counterparts, they are less likely to use chewing tobacco and cigars. Almost no students reported smoking a pipe. Figure 17 displays the prevalence of use for different tobacco products by youth.

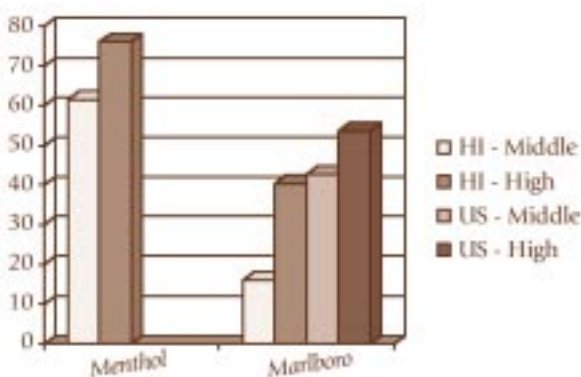
Figure 17. Ever use tobacco products by middle and high school students, YTS.



Type of Cigarettes

Hawai'i youth smokers have a strong preference for menthol cigarettes. Over 60% of middle school students and over 70% of high school students report smoking menthol cigarettes. Mainland students are more likely to smoke Marlboro cigarettes than their Hawai'i counterparts. On the mainland, 88% of youth report smoking Marlboro, Camel and Newport, the three most heavily advertised brands.⁷ It is estimated that the tobacco industry spends \$41.5 million a year in advertising tobacco in Hawai'i.⁸ Figure 18 presents the types of cigarettes youth usually smoke.

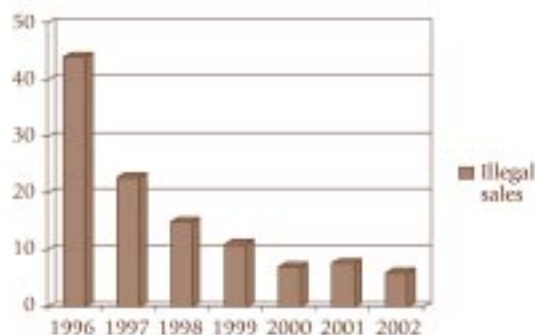
Figure 18. What kind of cigarettes do you usually smoke? (YTS)



Illegal Tobacco Sales to Youth

In Hawai'i, it is illegal to sell tobacco to youth under age 18. The State Department of Health has instituted a program of undercover police compliance checks since 1996 to reduce the rate of sales to minors. Each year, a series of compliance checks is conducted to assess the rate of illegal sales. Since 1996, the rate of illegal sales has fallen from 44% to under 10% (H). Illegal sales rates to minors are displayed in Figure 19.

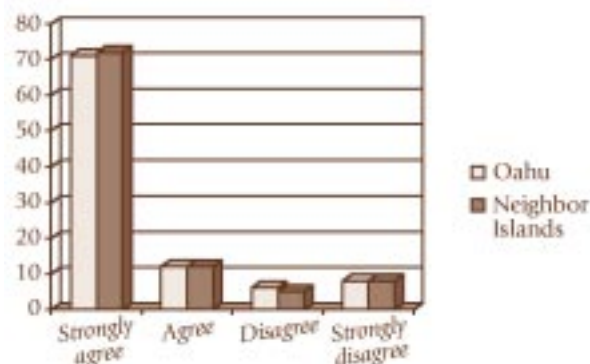
Figure 19. Illegal tobacco sales to minors



Tobacco Licensure

Tobacco licensure is an effective method for reducing illegal sales to minors. Currently, if a store is caught selling to a minor, the clerk is fined, and there are no repercussions to the business. This provides low motivation for stores to invest in training and monitoring of staff who sell cigarettes. The possibility of having a license suspended or revoked for repeated violations would provide much greater motivation. Licensure also provides a complete list of tobacco retail outlets and a possible funding source for retailer education and enforcement. When adults were asked if stores which sell tobacco should be required to obtain licenses in order to reduce sales to minors, over 70% strongly agreed. Figure 20 displays attitudes towards licensing stores to sell tobacco.

Figure 20. Should stores be licensed to sell tobacco products? (ATS)



Youth Tobacco Use Summary

Almost 7 out of 10 high school students in Hawai'i have tried smoking, with just under 30% smoking in the past month. About 13% of high school students are regular smokers, defined as smoking at least 20 days in the past month. Hawai'i middle school students are more likely to have tried smoking cigarettes than mainland students. No difference exists for high school students. Hawai'i high school students are less likely to use cigars and chewing tobacco than their mainland counterparts. Most (>60% and > 70%, respectively) of Hawai'i's middle and high school students prefer to smoke menthol cigarettes. Illegal sales of tobacco to youth have declined steadily since 1996, when the Department of Health began conducting statewide tobacco compliance checks. Most adults (70%) strongly agree that retail outlets should be required to obtain licenses to sell tobacco products.

ENVIRONMENTAL TOBACCO SMOKE (ETS)

Environmental Tobacco Smoke (ETS), “secondhand smoke” is a known human carcinogen and major health hazard for smokers and non-smokers alike. Exposure to secondhand smoke is especially dangerous in enclosed spaces, including homes, cars, and workplaces. Workers in restaurants, bars and night clubs are likely to be exposed to especially high levels. Data on secondhand smoke is collected through two self report surveys. The Adult Tobacco Survey (ATS) was conducted in 1998 and 2001, and will be conducted again in late 2003. The Healthy Hawai‘i Initiative Survey has been conducted in the spring of 2002, fall of 2002 and spring of 2003. It is a statewide random digit dial survey examining attitudes towards tobacco use. More information on the data sources can be found in the Appendix.

Exposure in the Home

For nonsmokers who do not work outside the home, such as children, the home is likely to be the major source of secondhand smoke exposure. On Oahu, 21% of households have at least one smoker. On the Neighbor Islands, 27% of households have a smoker (Fig. 21). Since more than 1 in 5 households in the state has a smoker, rules about smoking in the home are important for protecting nonsmokers. Over 70% of homes do not allow smoking at all while fewer than 15% of homes allow smoking anywhere (Fig. 22). Similar results were found for rules on smoking in personal cars (Fig. 23. E). More than 80% of household with children under 5 were smoke-free (Fig. 24)

Figure 21. Percent of households with a smoker in the home, ATS

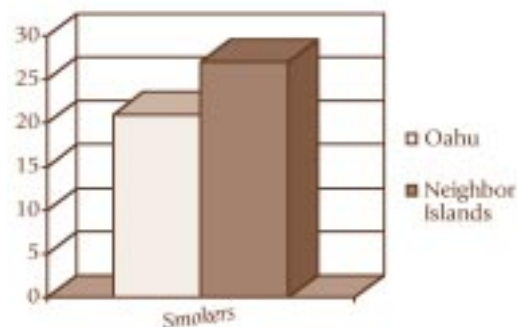


Figure 22. Rules about smoking in the home, ATS

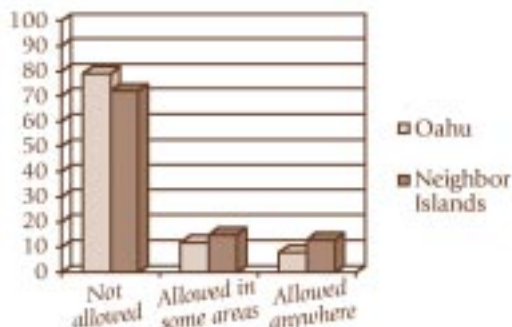


Figure 23. Rules about tobacco use in cars

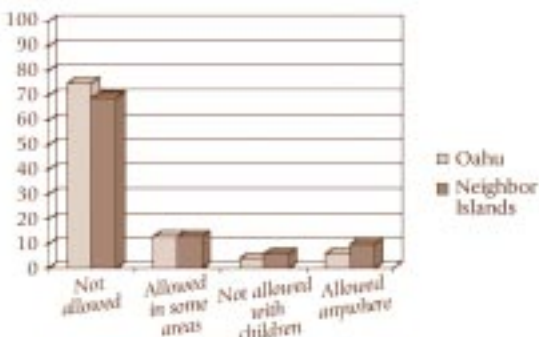
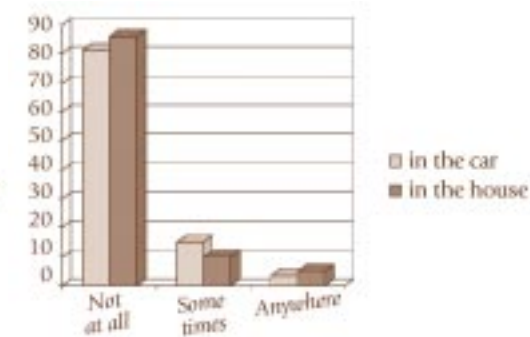


Figure 24. Rules about smoking in households with children under 5



Exposure at work

Secondhand smoke exposure on the job is especially important because workers are likely to be exposed for long periods and are often unable to avoid secondhand smoke. For nonsmokers who are not exposed at home, the workplace is likely to be the major source of exposure. On Oahu, 11% of workers reported being exposed on the job in the past week. On the Neighbor Islands, 17% reported being exposed. Most workplaces (>70%) do not allow smoking in the workplace, but over 20% allow smoking at least in some areas. Most workers (83% Oahu, 67% Neighbor Island) believe that smoking should not be allowed in any indoor work area (E). Smoke-free workplace laws differ by county. Hawai'i County enacted a smoke-free workplace law including restaurants on August 1, 2003. Maui does not have a smoke-free workplace law (apart from restaurants) and Kauai exempts workplaces of five or less people. Honolulu County has a law in place that requires most workplaces, including restaurants, to be smoke-free, but exempts free-standing bars and nightclubs.

Figure 25. In the past week, has anyone smoked in your work area? (ATS)

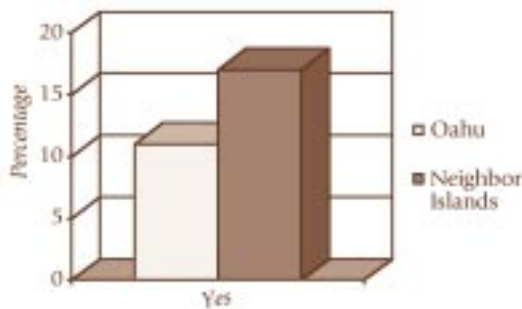


Figure 26. What is your official work policy?

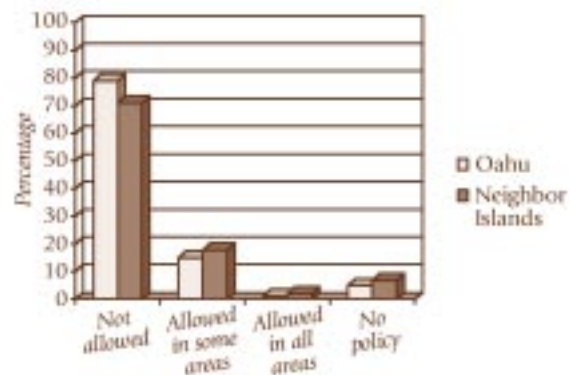
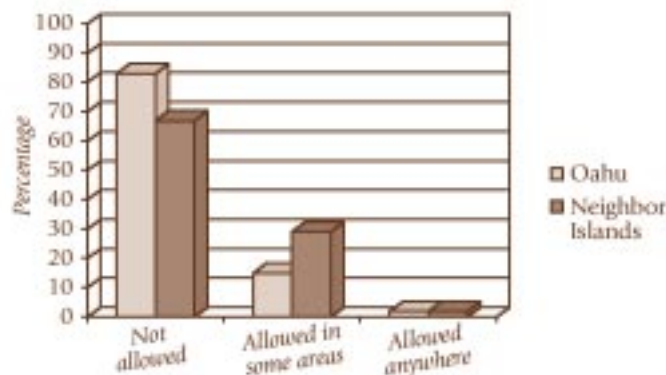


Figure 27. In indoor work areas, do you think smoking should be allowed? (ATS)



Attitudes towards ETS

Assessing the public's attitudes towards ETS is important in developing public policy. Often policy is decided by a vocal minority. Over 85% of people in Hawai'i including 80% of smokers, believe that second-hand smoke harms non-smokers. Less than 20% of people in Hawai'i, and less than 40% of smokers, believe that it is OK to smoke indoors. Over 70% of people in Hawai'i, and almost 50% of smokers, believe all restaurants and bars should be smoke-free (F). Figures 28-30 display these results.

Figure 28. Second-hand smoke harms non-smokers (HHI)

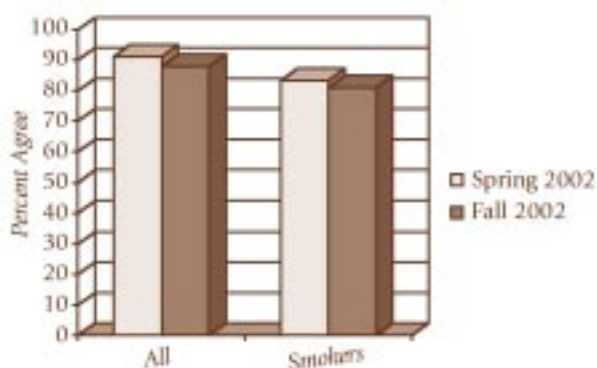


Figure 29. It is OK to smoke indoors (HHI)

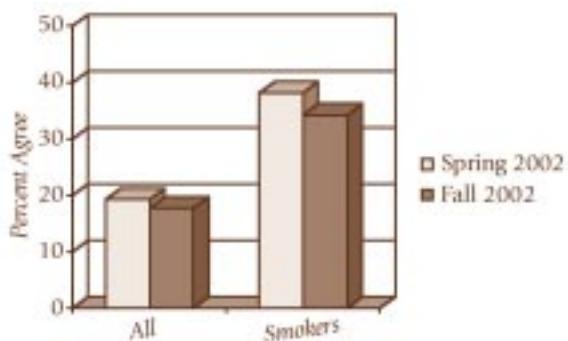
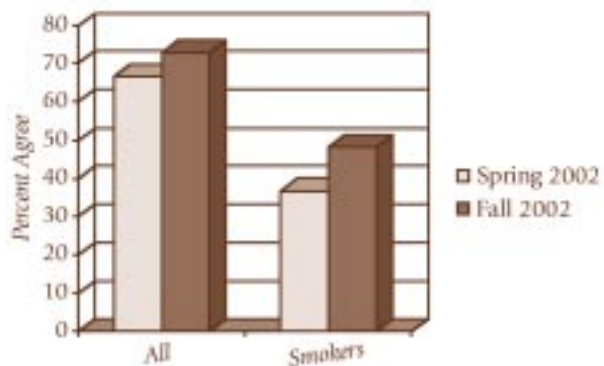


Figure 30. All restaurants and bars in Hawai'i should be smoke-free (HHI)



Environmental Tobacco Smoke Summary

About 1 in 5 households in Hawai'i has an adult who smokes living there. About 7 out of 10 people do not allow smoking in the house or car. On Oahu, 11% of indoor workers have been exposed to secondhand smoke on the job during the past week, compared to 17% on the Neighbor Islands. Over 70% of work places prohibit smoking in all enclosed areas. Over four in five people, smokers and non-smokers alike, believe that second hand smoke harms non-smokers. Less than 20% of people in Hawai'i and less than 40% of smokers believe that it is OK to smoke indoors. Over 70% of people in Hawai'i and almost 50% of smokers, believe all restaurants and bars should be smoke-free.

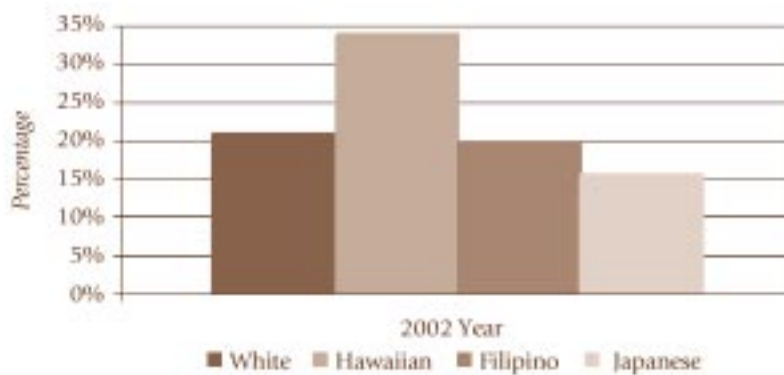
SPECIFIC POPULATIONS

Smoking and its health effects do not touch everyone equally. Some groups of people are at greater risk from smoking. For example, people of Native Hawaiian ethnicity and pregnant women are at greater risk than the general population. Native Hawaiians because they are more likely to smoke, and pregnant women because they and their offspring are subject to special health problems when they smoke. This chapter will examine these two groups.

Native Hawaiians

According to the 2002 BRFSS, the prevalence of smoking among Native Hawaiian adults is 33.8%. Caucasians have the second highest prevalence rate at 21%. Figure 31 displays the percentage of cigarette smokers by ethnicity.

Figure 31. Percentage of smokers by ethnicity



In 2000, a survey of a non-probability sample of 511 Native Hawaiian smokers was conducted at 5 health care systems throughout the state. The objective of the Native Hawaiian Smokers Study (NHSS) was to understand tobacco use among Native Hawaiians and to examine health services and cessation can play in reducing the high rate of tobacco use among this population. Like youth, Native Hawaiian smokers prefer menthol cigarettes. The most popular brand among Native Hawaiians is Kool, with 39% of Native Hawaiians smoking this brand. Few Native Hawaiians smoke the popular mainland brands, Marlboro and Camel.

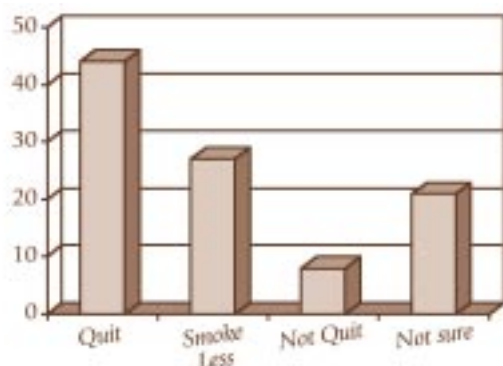
Figure 32. What brand of cigarettes do you smoke most often? (NHSS)

Kool	39%
Benson & Hedges	17%
Misty	7%
Marlboro	6%
Menthol	4%
USA	4%
Other	<3%

Readiness to Quit

Smokers in the study were asked about their current attitude towards quitting smoking (Fig. 33). Two out of five Native Hawaiian smokers (44%) would like to quit smoking, while another 27% are considering cutting down the number of cigarettes they smoke (I).

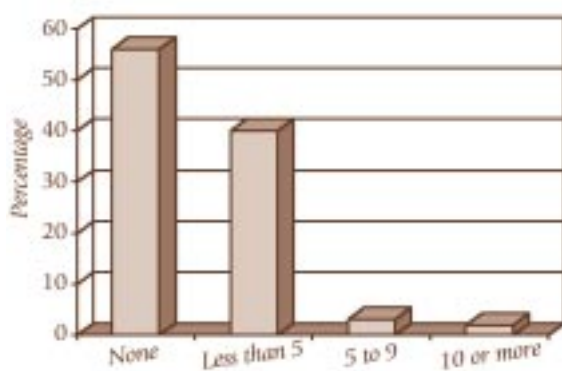
Figure 33. Current attitude towards smoking (NHSS)



Quitting smoking

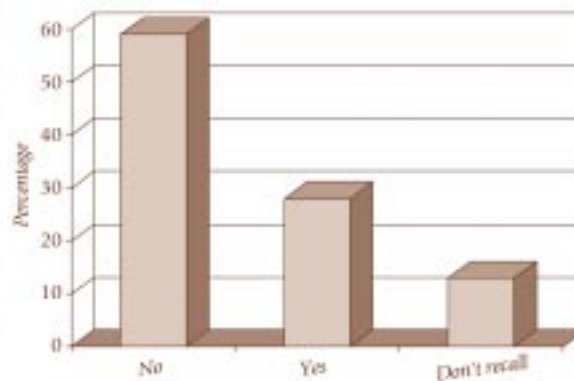
Almost half (45%) of Native Hawaiian smokers reported making at least one quit attempt in the past year, with 5% trying more than 5 times (I). Figure 34 displays the number of quit attempts among the individuals in the sample in the past year.

Figure 34. Quit attempts in the past year (NHSS)



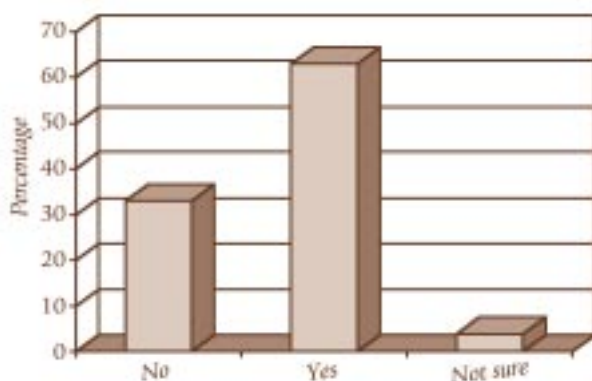
Few of the participants (28%) were aware of quit smoking programs in their community. Only 6% had participated in a quit smoking program. Figure 35 displays the awareness of quit smoking programs in the sample.

Figure 35. Are you aware of a quit smoking program (NHSS)



Most participants (63%) reported that their physician advised them to quit smoking. This was lower than the statewide average of 70.3% and the statewide average for Native Hawaiians of 69.1% (I; Fig. 36).

Figure 36. Has your physician advised you to quit smoking? (NHSS)



Native Hawaiian Summary

Native Hawaiians have the highest smoking rate of any ethnic group in Hawai'i. They prefer to smoke menthol cigarettes, specifically Kools. A majority of Native Hawaiian smokers would like to quit or at least cut down their smoking. However, awareness and use of quit smoking programs are low in this population. While over three or five of the respondents reported receiving advice from their physicians to quit smoking, this was lower than the rate in the state's overall population or the rate among Native Hawaiians in the state.

Pregnant women

Pregnant women are also at special risk from smoking. Not only does smoking harm pregnant women, it also can do great damage to the developing fetus. The Pregnancy Risk Assessment Monitoring System (PRAMS) is a statewide surveillance system which uses a stratified random sample to assess risk factors and behaviors associated with pregnancy. More information on this data source can be found in the Appendix.

Smoking During Pregnancy

Smoking during pregnancy is assessed both 3 months before a woman gets pregnant and during the last trimester. During the three months before pregnancy, smoking among women is 20.2%, a rate similar to the overall rate for women in the same age group. During the third trimester, smoking drops to 8.4%. Hawai'i's rate of smoking before pregnancy was lower than all but two states of the 17 states included in the 1999 PRAMS surveillance report – Florida and Utah. For smoking during the last trimester, only Utah had a lower rate than Hawai'i.⁹ Ethnic differences were also seen in smoking rates. Native Hawaiian women were more likely than other ethnic groups to smoke in the three months before pregnancy (29.8%) and during the third trimester (15.3%). No other significant differences were seen among the ethnic groups.

Advice to Quit Smoking

Health care workers represent an important intervention point for reducing smoking among pregnant women. Smoking status should be assessed for all pregnant women, and those who smoke should be advised to quit. In this population, 72.8% of women were asked about smoking while they were pregnant (J).

- Overall, 72.8% of women reported having a health care worker ask them about smoking while they were pregnant.
- Among women who continued smoking during the third trimester, 14.3% reported having no conversations with a health care worker about their smoking during pregnancy.

Low Birth Weight Babies

Low birth weight babies are also a concern for women who smoke during pregnancy. Data from 2000-2001 showed a non-significant increase in low birth-weight babies among mothers who smoked in the 3 months before pregnancy (6.5%) compared to those who didn't (6.0%). A non-significant trend was observed for mothers who smoked during the last trimester (8.1%) to be more likely to have low birth-weight babies than those who did not smoke (5.8%).

Pregnant women summary

Pregnant women smoke at a similar rate to other women in their age group. A majority of smokers quit during pregnancy, but about 8% of pregnant women continue to use tobacco in their third trimester. Native Hawaiian women smoked before and during pregnancy at a higher rate than other ethnic groups. Almost three quarters of pregnant women are asked by a health care worker whether they smoked. Women who continued to smoke during the third trimester were slightly more likely to have a low birth weight baby than those who did not smoke.

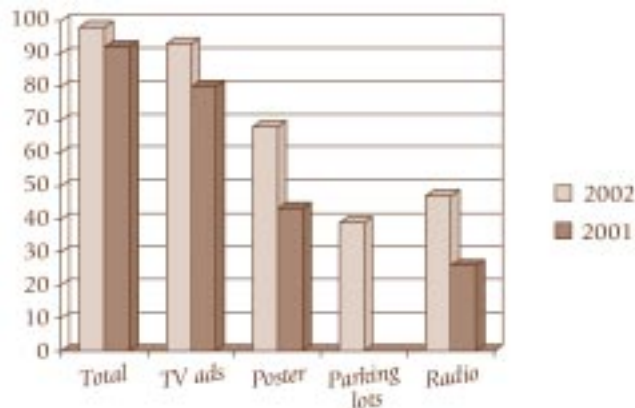
MEDIA EVALUATIONS

Over the past several years, the Department of Health has developed and implemented a mass media campaign designed to increase awareness and knowledge and change attitudes about tobacco use. The main focus of the media campaign has been to change social norms around youth tobacco use and environmental tobacco smoke. Two surveys, the Media Tracking Survey (MTS) and the Mall Intercept Survey (MIS), have been used to assess the effectiveness of these campaigns. The MTS, a random digit dial telephone survey of both youth and adults, was conducted in January 2001 and July 2002. The MIS was conducted in October 2000 and March 2002 among a randomly selected population of 11-17 year old mall goers. More information on these two surveys can be found in the Appendix.

Recall of Spots – Media Tracking Survey

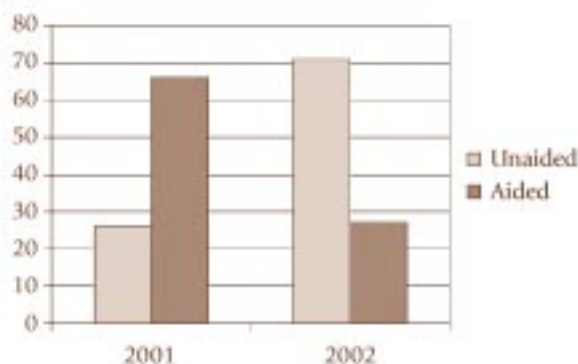
The DOH has used a variety of venues to promote its message including television, radio, parking lots and posters. Posters include both mall ads and movie theaters. Recognition of the campaign is very high. In 2002, 98% of respondents recalled the campaign. Television was the most remembered channel (Fig. 37).

Figure 37. Recall of Tobacco Media Campaign, MTS



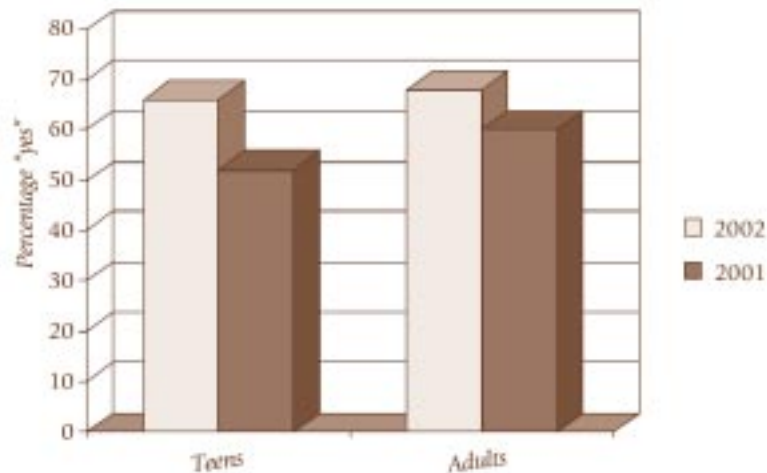
Unaided recall of the campaign increased sharply between 2001 and 2002, from 26% to 71% (MTS; Fig. 38).

Figure 38. Recall of media spots, aided vs. unaided, MTS.



The ads were highly effective in causing both teens (66% in 2002) and adults (68% in 2002) to think about whether or not they should smoke (Fig. 39).

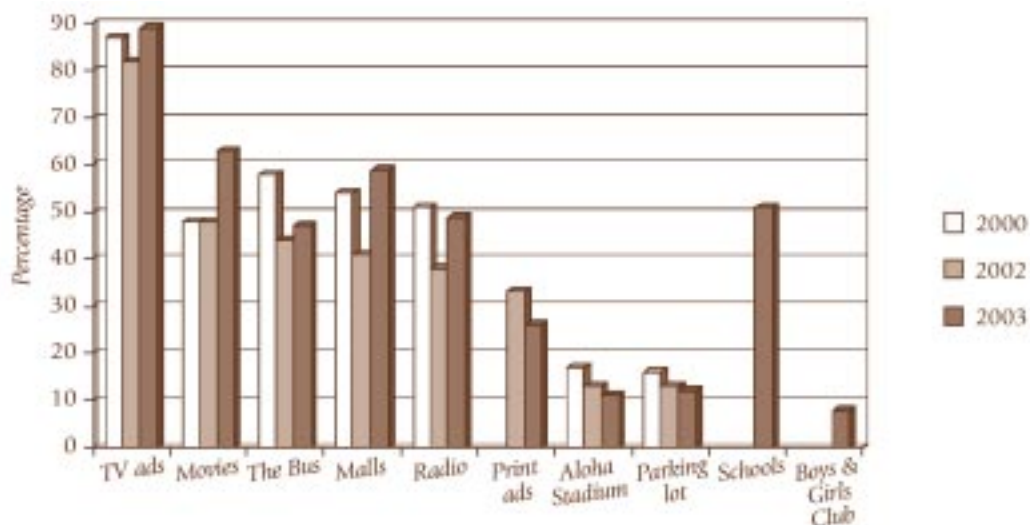
Figure 39. Did the ads make you think about whether or not you should smoke? (MTS)



Recall of Spots – Mall intercept

Teens surveyed at the mall had also seen the ads. In 2003, 89% reported seeing anti-tobacco advertising. The most widely recalled channel for seeing the ads was TV, but many teens also recalled being exposed to ads in other channels including the movies, The Bus, malls and radio (MIS; Fig. 40)

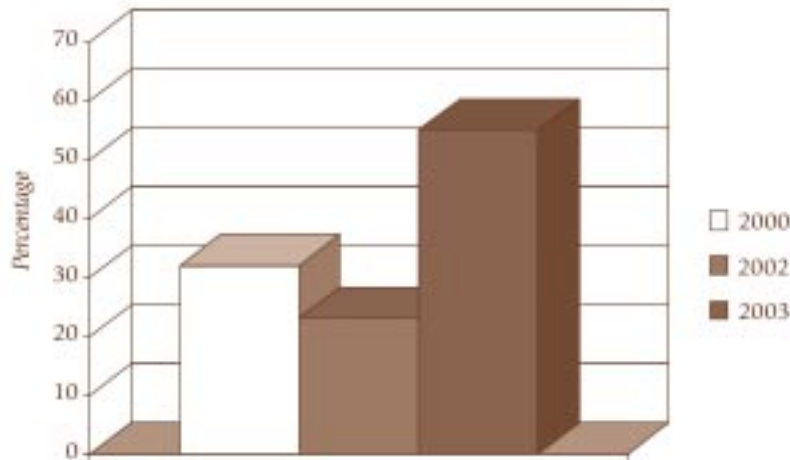
Figure 40. Where do you recall seeing or hearing anti-tobacco advertising?



More than half of the teens had discussed the ads they saw with friends. This was a significant increase from 2002. The 2002 data, which covered the 9/11 time period reflected creative material that was more for a general audience (18-54) than specifically for youth. We felt that the youth-oriented message, "You Smoke. You Die. Game Over" was inappropriate for the period immediately after 9/11, so we pulled that cam-

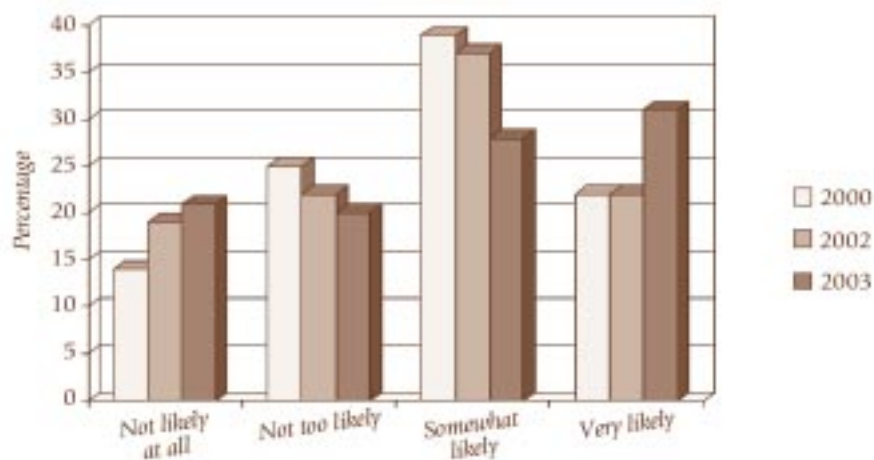
paign in favor of a more general audience theme. The small slippage in the numbers between the 2000 and the 2002 findings may have reflected this shift in focus. Figure 41 displays the percent of teens that discussed the ads with their friends.

Figure 41. Did you discuss the anti-tobacco ads with your friends? (MIS)



Most youth (59%) responding either “somewhat likely” or “very likely” also thought that the ads made people think twice about smoking (Fig. 42). This was also down slightly from 2000.

Figure 42. Do you think these ads make people think about smoking? (MIS)



Media Evaluation Summary

The media evaluation shows the DOH’s anti-tobacco spots are almost universally recognized by the public. Television is the most widely recalled channel, but other channels support the message well and are less expensive. In general, people believe the ads are effective and have made them think about whether or not they should smoke.

Surveys used in document

Survey	Sample size	Date collected	Area Collected	Methodology	95% CI
Behavioral Risk Factor Surveillance Survey (BRFSS)	2,000 pre-2001, 6,000 for 2001 & 2002	Ongoing throughout the year	Statewide, weighted to population	Random Digit Dial, see www.cdc.gov/brfss for full details	Overall ± 2.2 pre 2001, $\pm 1.5\%$ current
Adult Tobacco Survey (ATS)	1,821 statewide, 400 per county, 300 each East & West Hawai'i	November 2001	Statewide, weighted by County	Quota sampling, telephone administered, adults	$\pm 4.9\%$ Oahu, $\pm 2.3\%$ Neighbor islands
Youth Risk Behavior Survey (YRBS)	Approx. 1,800	Biannually weighted data available for 1993-1999	Statewide, 6th, 8th, 10th and 12th grade	School-based self administered survey with sampling	$\pm 2.1\%$
Healthy Hawai'i Initiative Evaluation Survey (HHI)	4,706 4,555	Spring 2002 Fall 2002	Statewide, weighted by county and gender	Quota sampling, telephone administered, adults	$\pm 2\%$ w/ 99% CI state
Youth Tobacco Survey (YTS)	1,045 middle school 1,511 high school	2000	17 middle schools 24 high schools All w/ peer education	School-based self administered survey, weighted	NR
Mall intercept survey (MIS)	202 500 500	October 2000 January 2002 June 2003	Oahu malls	Every 3rd teen, 11-17 years old	NR $\pm 4.4\%$ $\pm 4.4\%$
Media Tracking Survey (MTS)	302 teens 302 adults	January 2000 July 2002	Statewide	Quota sampling, telephone administered	$\pm 5.6\%$ each group ± 4.0 overall
Pregnancy Risk Assessment Monitoring System (PRAMS)	2,518 – 2000 data	Ongoing throughout the year	Statewide	Stratified random survey over-sampling at risk women, weighted	Less than 2%
Native Hawaiian Smokers Survey	511	June 2000	5 Native Hawaiian Health Care Systems, statewide	Non-probability sampling of Native Hawaiians	Unknown population not defined

Other Data Sources

Vital Statistics: Death Certificate Statistical File. Includes all deaths occurring in Hawai'i and deaths occurring out-of-state-to Hawai'i residents. Includes cause of death, place of death, demographics.

Department of Taxation: Cigarette Tax Receipts: Monthly tally of cigarette tax total. May be divided by tax rate to determine cigarette packs sold.

DOH press releases: The Department of Health releases statistics on the number of stores selling cigarettes to minors in undercover statewide inspections yearly.

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Data Sources:

- A. Centers for Disease Control and Prevention. *Smoking Attributable Mortality, Morbidity and Economic Costs*. Office of Smoking and Health. National Centers for Chronic Disease Prevention and Health Promotion, 1999.
- B. Hawai'i Department of Health. *Vital Statistics*. Office of Health Status Monitoring, 2000.
- C. Centers for Disease Control and Prevention. *Behavioral Risk Factor Surveillance System, 1990-2002*.
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- E. Hawai'i Department of Health. *Adult Tobacco Survey*, 2000.
- F. *Healthy Hawai'i Initiative Evaluation Survey*, 2002.
- G. Centers for Disease Control. *Youth Risk Behavior Survey*, 1993-1999.
- H. Department of Health Press Releases, 1996-2002.
- I. Native Hawaiian Smokers Survey
- J. PRAMS
- K. Department of Health, Alcohol and Drug Abuse Division
- L. University of Hawai'i, Cancer Research Center
- M. Police Departments of the Counties of Honolulu, Maui, Hawai'i and Kauai

Note: In this report, three data sets are used to report on adult tobacco use: the BRFSS, the ATS and the HHI. While all surveys use similar methodology, telephone based, quota sampling some differences may occur. We assessed the adult smoking prevalence in each to check the comparability of the data sets. In 2002, the HHI classified 18.0% of respondents as current smokers. The BRFSS had a slightly higher rate of 21.0%. The ATS was collected in 2001, the smoking prevalence was 18.5%. All three surveys yielded similar smoking prevalence rates indicating some comparability between the instruments.

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**Smoking and Tobacco Use in Hawai'i:
Facts, Figures, and Trends**



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